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RADIUM MONITORING NETWORK
DATA RELEASE NUMBER 7

PUBLIC HEALTH SERVICE, DENVER, COLORADO

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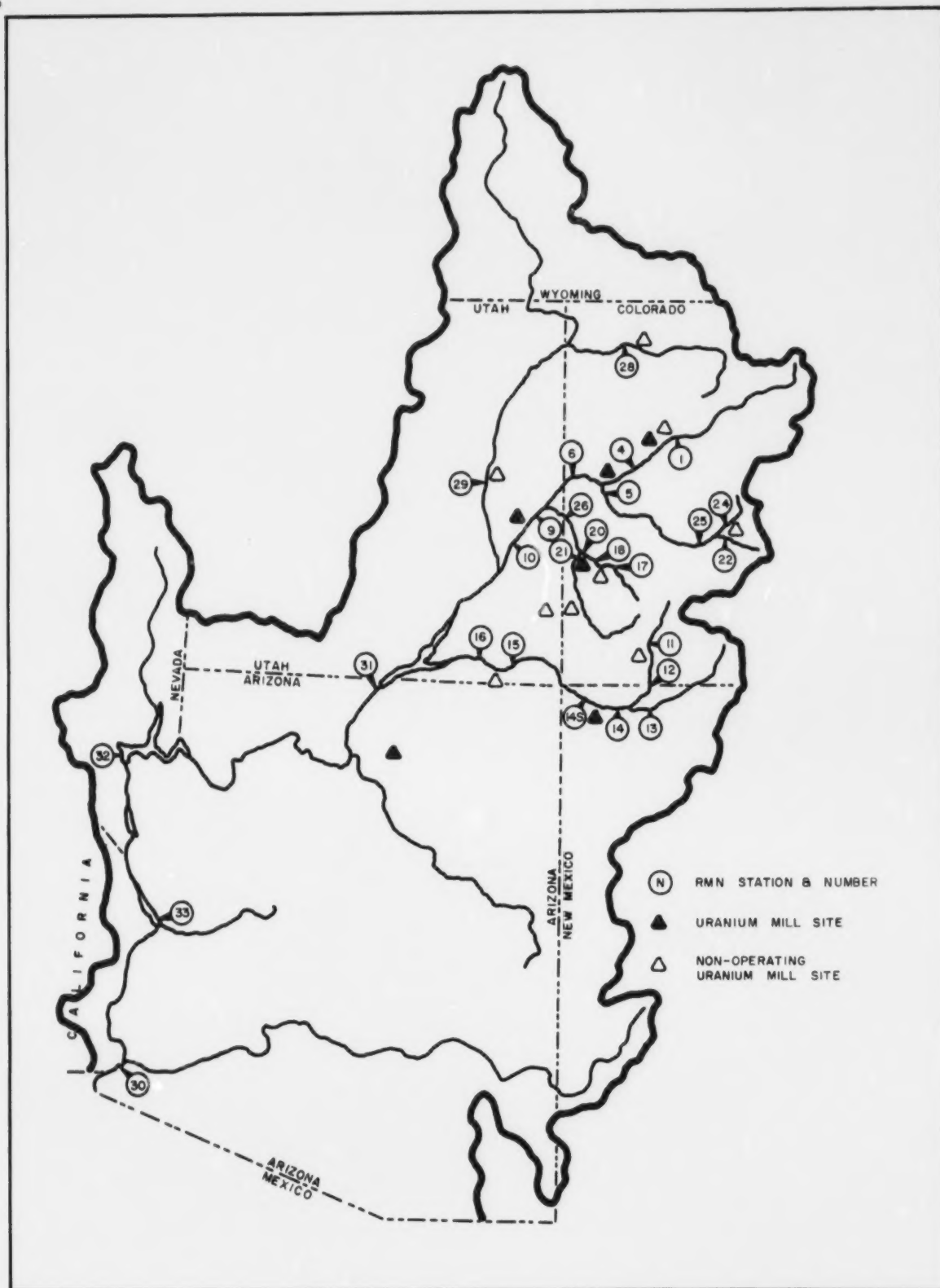
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Denver, Colorado

Colorado River Basin Water Quality Control Project

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16. Abstracts In the seventh data release report, radium-226 and uranium results are presented that supplement data from previous releases of October 1962, January 1963, July 1963, January 1964, July 1964, and January 1965. The data indicate evidence of uranium mining and milling from analysis of composite water samples at stations of the Radium Monitoring Network of the Colorado River Basin Water Quality Control Project. The network is a surveillance system consisting of continuous surface water sampling at 27 locations throughout the basin. It assays the radiological content of river water over the entire basin. Tabular data are given.			
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COLORADO RIVER BASIN RADIUM MONITORING NETWORK

COLORADO RIVER BASIN WATER QUALITY CONTROL PROJECT
RADIUM MONITORING NETWORK DATA RELEASE NO. 7

INTRODUCTION

This is the seventh release of data collected through the Radium Monitoring Network maintained by the Colorado River Basin Water Quality Control Project of the Division of Water Supply and Pollution Control, U. S. Public Health Service. The purpose of this release is to supplement data given in six previous releases dated October 1962, January 1963, July 1963, January 1964, July 1964, and January 1965.

A summary report of Radium Monitoring Network data collected through December of 1963 was published in the November 1964 edition of Radiological Health Data, copies of which are now available through Colorado River Basin Project Headquarters.

The Radium Monitoring Network is a surface water surveillance system currently consisting of twenty-one sampling stations located throughout the Colorado River Basin. During initial stages of the surveillance program, the system consisted of twenty-seven sampling stations. The purpose of this network is to provide a continuous assay of the Basin river water radioactivity resulting primarily from uranium mining and milling industry waste discharges. Recently, the types of sample analyses were expanded from radium-226 and uranium analyses to include gross alpha, gross beta, thorium alpha, lead-210, strontium-90 and gamma scans in order to provide a more comprehensive picture of uranium industry radiological contaminants and nuclear weapons testing fallout contributions to Colorado River Basin surface waters. The network was established following a 1957 conference on uranium milling wastes, attended by representatives of the States of Arizona, Colorado, New Mexico, and Utah, and the U. S. Public Health Service.

SAMPLING PROCEDURES

Depending on individual station parameters, Radium Monitoring Network (RMN) grab samples are collected once or three times per week, and at several stations automatic samplers collect 21 ml portions every hour. The samples are sent "as is" to the Colorado River Basin Laboratory where they are composited and filtered through 0.45 micron membrane filters as soon as possible after the samples for the compositing period are received. After filtration, they are acidified with 2 percent by volume of 12 N HCl and radiochemical determinations are then conducted on the filtered water from the composites.

RESULTS

The Appendix contains the radium-226 and uranium data appended to that presented in the six previous data releases. A summary of all radium-226 and uranium data is given in Table 1, and gross alpha, gross beta, lead-210, thorium alpha and strontium-90 results are given in Table 2.

No significant changes in monthly average concentrations of radium-226 or uranium were noted at any stations. The quarterly gross alpha figures given in Table 2 agree with the general range of monthly figures reported by the Public Health Service Water Pollution Surveillance System for their Colorado River Basin stations, while the gross beta results tend to range a trifle lower than the WPSS results.

The lead-210 and thorium alpha results are consistently low throughout the Basin with some increases above normal levels noted in several sample composites collected immediately below uranium mill waste discharges. The highest thorium alpha level of 8.0 pc/liter reported for the second quarter below Uravan, Colorado may be erroneous in view of the lower levels obtained for the other three quarters.

Four of the five river sampling stations for which strontium-90 determinations were performed (the two other stations are not immediately affected by runoff) tend to portray higher than average levels during July-September 1963 quarter. Additionally, several slightly higher levels occur in the April-June and July-September 1964 quarters, suggesting a seasonal variation related to runoff collection of fallout.

All gross gamma determinations on the quarterly composites did not produce a total gamma activity above 33 pc/liter, which is the minimum detectable activity obtainable with the available equipment and sample characteristics.

TABLE 1

RADIUM-226 AND URANIUM IN SURFACE WATERS OF THE COLORADO RIVER BASIN

Station Number and Location	Radium-226			Uranium		
	Avg. ^{1/} $\mu\text{g/l}$	Range $\mu\text{g/l}$	No. of Analyses	Avg. ^{1/} $\mu\text{g/l}$	Range $\mu\text{g/l}$	No. of Analyses
Animas River						
#11 above Durango, Colo.	0.05	0.03-0.11	38	1.1	0.1- 2.5	32
#12 Colorado-New Mexico State Line	0.30	0.09-1.5	89	4.0	0.4- 18	47
Colorado River						
# 1 at Silt, Colorado	0.21	0.04-0.39	43	3.0	0.1- 4.4	29
# 4 at DeBeque, Colorado	0.20	0.05-0.44	44	3.8	0.4- 7.2	29
# 6 at Fruita, Colorado	0.19	0.09-0.26	39	9.7	3.2- 14	30
# 9 above Moab, Utah	0.27	0.10-0.50	72	10	3.6- 17	59
#10 below Moab, Utah	0.43	0.18-7.2	68	12	3.7- 22	55
#31 at Page, Arizona	0.24	0.16-0.31	22	8.8	6.5- 13	22
#32 Lake Mead	0.32	0.21-0.40	24	8.5	5.6- 11	24
#33 Lake Havasu	0.35	0.06-0.41	26	8.4	5.9- 11	26
#30 at Yuma, Arizona	0.17	0.06-0.33	34	8.3	5.9- 11	29
Dolores River						
#21 at Bedrock, Colorado	0.51	0.03-1.4	42	14	0.9- 35	29
#26 at Gateway, Colorado	1.2	0.04-3.2	81	13	0.1- 51	58
Green River						
#28 below Maybell, Colo.	0.09	0.03-0.15	33	2.7	0.6- 8.0	29
#29 below Green River, Utah	0.09	0.05-0.15	28	5.0	1.6- 7.6	25
Gunnison River						
#24 above Gunnison, Colo.	0.05	0.01-0.08	39	1.2	0.0- 2.6	29
#25 below Gunnison, Colo.	0.04	0.01-0.09	42	2.2	0.6- 4.3	29
# 5 at Grand Junction, Colo.	0.10	0.01-0.30	38	11	0.7- 19	29
San Juan River						
#13 above Farmington, N.M.	0.07	0.03-0.16	20	2.8	0.0- 8.3	19
#14 below Farmington, N.M.	0.10	0.04-0.21	30	3.6	0.9- 9.0	29
#14S below Shiprock, N.M.	0.10	0.04-0.26	95	14	2.0- 93	91
#15 above Mexican Hat, Utah	0.14	0.04-0.66	42	7.8	2.6- 23	29
#16 below Mexican Hat, Utah	0.14	0.01-0.84	113	9.8	0.8- 35	95
San Miguel River						
#17 above Naturita, Colo.	0.04	0.00-0.19	57	1.2	0.0- 3.9	29
#18 above Uravan, Colo.	0.23	0.05-1.24	90	6.8	0.9- 63	59
#20 below Uravan, Colo.	1.0	0.06-5.6	154	31	0.0-150	126

^{1/} Average concentration obtained from all data presented in this and previous data releases.

TABLE 2

GROSS ALPHA, GROSS BETA, THORIUM ALPHA, LEAD-210 AND STRONTIUM-90 IN COLORADO RIVER BASIN SURFACE WATERS

Station Number and Location	Quarter Period	Gross Alpha		Gross Beta	Th-alpha		Pb-210	Sr-90		Quarter Period	Gross Alpha		Gross Beta	Th-alpha		Pb-210	Sr-90	
		pc/l	pc/l	pc/l	pc/l	pc/l	pc/l	pc/l	pc/l		pc/l	pc/l	pc/l	pc/l	pc/l	pc/l	pc/l	pc/l
RMS 1 Colorado River at Silt, Colorado	1	2	10	10	-	-	-	-	-	1	8	30	7	0.1	0.4	0.2	0.2	0.2
	2	2	18	18	-	-	0.4	0.4	0.4	2	5	13	7	0.3	0.3	0.1	0.1	0.1
	3	2	8	8	0.4	0.4	0.1	0.1	0.1	3	4	30	7	0.2	0.2	0.2	0.2	0.2
	4	3	20	20	0.1	0.1	0.1	0.1	0.1	4	4	10	10	0.3	0.3	0.2	0.2	0.2
RMS 4 Colorado River at DeBeque, Colorado	1	3	11	11	2.8	2.8	0.9	0.9	0.9	1	2	7	7	0.1	0.1	0.0	0.0	0.0
	2	3	22	22	0.9	0.9	0.9	0.9	0.9	2	2	7	7	0.1	0.1	0.0	0.0	0.0
	3	3	9	9	0.9	0.9	0.9	0.9	0.9	3	2	7	7	0.1	0.1	0.0	0.0	0.0
	4	1	23	23	0.9	0.9	0.9	0.9	0.9	4	1	10	10	0.0	0.0	0.0	0.0	0.0
RMS 5 Colorado River below Grand Junction, Colorado	1	7	41	41	0.1	0.1	0.1	0.1	0.1	1	13	23	23	1.1	1.1	0.6	0.6	0.6
	2	5	11	11	0.0	0.0	0.0	0.0	0.0	2	19	43	43	8.0	8.0	0.4	0.4	0.4
	3	7	22	22	0.5	0.5	0.5	0.5	0.5	3	20	26	26	0.8	0.8	0.2	0.2	0.2
	4	2	14	14	0.1	0.1	0.1	0.1	0.1	4	12	33	33	1.0	1.0	0.1	0.1	0.1
RMS 9 Colorado River above Moab, Utah	1	8	33	33	8.4	8.4	1.6	1.6	1.6	1	3	26	26	9.6	9.6	3.3	3.3	3.3
	2	12	20	20	1.2	1.2	1.2	1.2	1.2	2	3	14	14	3.3	3.3	2.5	2.5	2.5
	3	5	12	12	2.2	2.2	2.2	2.2	2.2	3	1	10	10	3.2	3.2	1.2	1.2	1.2
	4	2	16	16	0.0	0.0	0.0	0.0	0.0	4	3	12	12	1.4	1.4	0.1	0.1	0.1
RMS 10 Colorado River below Moab, Utah	1	9	31	31	0.1	0.1	0.1	0.1	0.1	1	3	5	5	0.0	0.0	0.2	0.2	0.2
	2	4	8	8	0.2	0.2	0.2	0.2	0.2	2	3	10	10	1.2	1.2	1.2	1.2	1.2
	3	6	16	16	0.0	0.0	0.0	0.0	0.0	3	4	4	4	1.2	1.2	1.2	1.2	1.2
	4	3	14	14	0.0	0.0	0.0	0.0	0.0	4	5	9	9	1.4	1.4	0.0	0.0	0.0
RMS 11 Animas River at Durango, Colorado	1	1	5	5	0.9	0.9	0.9	0.9	0.9	1	5	9	9	0.0	0.0	0.2	0.2	0.2
	2	1	5	5	0.7	0.7	0.7	0.7	0.7	2	3	22	22	0.0	0.0	0.2	0.2	0.2
	3	1	9	9	0.9	0.9	0.9	0.9	0.9	3	4	9	9	0.1	0.1	0.1	0.1	0.1
	4	1	8	8	1.5	1.5	1.5	1.5	1.5	4	4	11	11	0.2	0.2	0.0	0.0	0.0
RMS 14S San Juan River below Shiprock, New Mexico	1	12	16	16	0.1	0.1	0.1	0.1	0.1	1	6	8	8	1.2	1.2	1.5	1.5	1.5
	2	7	14	14	0.0	0.0	0.0	0.0	0.0	2	4	10	10	1.5	1.5	1.3	1.3	1.3
	3	3	9	9	0.0	0.0	0.0	0.0	0.0	3	3	11	11	1.3	1.3	1.5	1.5	1.5
	4	8	14	14	0.2	0.2	0.2	0.2	0.2	4	4	10	10	1.5	1.5	1.5	1.5	1.5
RMS 15 San Juan River above Mexican Hat, Utah	1	6	29	29	6.0	6.0	2.0	2.0	2.0	1	6	8	8	1.2	1.2	1.5	1.5	1.5
	2	4	14	14	3.2	3.2	2.0	2.0	2.0	2	4	10	10	1.5	1.5	1.3	1.3	1.3
	3	4	10	10	2.0	2.0	2.0	2.0	2.0	3	3	11	11	1.3	1.3	1.5	1.5	1.5
	4	3	14	14	2.9	2.9	2.9	2.9	2.9	4	4	10	10	1.5	1.5	1.5	1.5	1.5

1/ Quarter Period
 1 July - September 1963
 2 October - December 1963
 3 January - March 1964
 4 April - June 1964

A P P E N D I X

RMN Station 1: Colorado River at Silt, Colorado

Started: November 25, 1961

Type: Automatic Pump-Timer

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 29-October 3	0.25	2.9
October 3-October 31	0.28	3.5
October 31-November 28	0.34	3.9
November 28-January 2	0.28	4.3
<u>1965</u>		
January 2-January 30	0.28	3.7
January 30-February 27	0.30	3.6

RMN Station 4: Colorado River above DeBeque, Colorado

Started: November 12, 1961

Type: Automatic Pump-Timer

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 29-October 3	0.20	3.7
October 3-October 31	0.25	4.6
October 31-November 28	0.26	7.2
November 28-January 2	0.29	5.3
<u>1965</u>		
January 2-January 30	0.26	5.3
January 30-February 27	0.26	4.9

RMN Station 5: Gunnison River above Grand Junction, Colorado

Started: April 16, 1962

Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 31-October 2	0.10	14
October 4-October 30	0.11	19
November 2-November 27	0.09	17
November 30-January 1	0.10	14
<u>1965</u>		
January 4-January 29	0.11	13
February 1-February 26	0.09	11

RMN Station 6: Colorado River near Fruita, Colorado

Started: April 16, 1962

Type: Three grab samples per week

<u>Date</u>	<u>Radium 226</u> <u>µg/liter</u>	<u>Uranium</u> <u>µg/liter</u>
<u>1964</u>		
August 31-October 2	0.19	13
October 5-October 30	0.18	14
November 2-November 27	0.23	12
November 30-January 1	0.18	14
<u>1965</u>		
January 4-January 29	0.23	11
February 1-February 26	0.21	9.1
March 1-April 2	0.23	9.4

RMN Station 9: Colorado River above Moab, Utah

Started: December 11, 1961

Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 31-October 2	0.23	9.6
October 5-October 30	0.20	14
November 2-November 27	0.18	15
November 30-January 1	0.24	14
<u>1965</u>		
January 4-January 29	0.19	11
February 1-February 26	0.26	11

RMN Station 10: Colorado River below Moab, Utah
Started: December 11, 1961
Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>ug/liter</u>	<u>Uranium</u> <u>ug/liter</u>
<u>1964</u>		
August 31-October 2	0.29	16
October 5-October 30	0.30	18
November 2-November 27	0.34	17
November 30-January 1	0.23	16
<u>1965</u>		
January 4-January 29	0.30	14
February 1-February 26	0.29	14

RMN Station 11: Animas River at Durango, Colorado

Started: July 17, 1961

Type: One grab sample per week

<u>Date</u>	<u>Radium 226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 31-October 2	0.05	1.4
October 9-October 30	0.00	1.9
November 6-November 25	0.06	1.9
December 4-December 31	0.06	1.9
<u>1965</u>		
January 8-January 29	0.04	1.2
February 5-February 26	0.04	1.0

RMN Station 12: Animas River at Colorado - New Mexico State Line

Started: January 19, 1961

Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 5-August 29	0.03	2.3
September 1-October 4	0.16	3.7
October 6-October 31	0.14	6.0
November 3-November 28	0.11	3.7
December 2-January 2	0.10	3.5
<u>1965</u>		
January 5-January 30	0.09	2.7
February 2-February 27	0.09	2.7

RMN Station 14: San Juan River at Fruitland, New Mexico

Started: August 1, 1962

Type: One grab sample per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 4-August 25	0.13	2.3
September 1-September 29	0.06	3.5
October 5-October 26	0.06	3.2
November 2-November 23	0.06	4.0
November 30-December 28	0.06	4.0
<u>1965</u>		
January 4-January 25	0.11	2.0
February 1-February 22	0.03	2.0

RIN Station 14S: San Juan River below Shiprock, New Mexico
Started: August 7, 1962
Type: One grab sample per week

<u>Date</u>	<u>Radium 226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
September 2-September 6	0.11	14
September 9-September 13	0.10	16
September 15-September 19	0.06	9.1
September 22-September 26	0.10	7.8
September 30-October 4	0.06	7.5
October 7-October 11	0.06	11
October 14-October 18	0.09	16
October 21-October 25	0.08	22
October 28-November 1	0.08	21
November 5-November 9	0.08	28
November 10-November 14	0.05	32
November 19-November 23	0.06	8.9
November 25-November 29	0.08	13
December 2	0.09	12
December 9	0.05	15
December 16	0.08	14
December 23	0.05	13

<u>1965</u>		
December 30	0.03	5.0
January 6	0.08	6.3
January 12	0.06	7.9
January 20	0.08	3.5
January 27	0.08	2.6
February 3	0.07	2.0
February 10	0.14	3.5
February 17	0.06	3.3
February 24	0.05	2.9

RMN Station 15: San Juan River above Mexican Hat, Utah
Started: December 11, 1961
Type: Six daily grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 31-October 3	0.13	9.5
October 5-October 31	0.66	23
November 2-November 28	0.10	8.8
November 30-January 2	0.06	7.3
<u>1965</u>		
January 4-January 30	0.04	4.8
February 1-February 27	0.06	3.7

RMN Station 16: San Juan River below Mexican Hat, Utah

Started: December 11, 1961

Type: Six daily grabs per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 31-September 5	0.10	9.2
September 7-September 12	0.01	35
September 14-September 19	0.14	10
September 21-September 26	0.14	14
September 28-October 3	0.13	13
October 5-October 10	0.03	20
October 12-October 17	0.06	33
October 19-October 24	0.06	15
October 26-October 31	0.34	27
November 2-November 7	0.03	24
November 9-November 14	0.05	21
November 16-November 21	0.09	14
November 23-November 23	0.05	17
November 30-December 5	0.04	16
December 7-December 12	0.03	30
December 14-December 19	0.16	7.0
December 21-December 26	0.03	8.5
December 28-January 2	0.05	10
<u>1965</u>		
January 4-January 9	0.06	6.9
January 11-January 16	0.05	5.2
January 18-January 23	0.05	4.8
January 25-January 30	0.03	4.3
February 1-February 6	0.04	4.3
February 8-February 13	0.06	3.5
February 15-February 20	0.03	5.9
February 22-February 27	0.06	4.5

RMN Station 17: San Miguel River above Naturita, Colorado
Started: October 28, 1961
Type: Automatic Pump-Timer

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 1-August 29	0.08	1.2
August 29-October 3	0.06	2.7
October 3-November 1	0.03	2.3
November 1-November 29	0.05	2.4
November 29-January 3	0.04	2.2
<u>1965</u>		
January 3-January 30	0.14	1.7
January 31-February 28	0.04	1.4

RMN Station 18: San Miguel River above Uravan, Colorado
Started: October 27, 1961
Type: Automatic Pump-Timer

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 29-October 3	0.15	6.3
October 3-November 1	0.11	3.5
November 1-November 29	0.10	5.0
November 29-January 3	0.09	5.0
<u>1965</u>		
January 3-January 31	0.13	4.9
January 31-February 28	0.10	4.9

RMN Station 20: San Miguel River below Uravan, Colorado
 Started: October 9, 1961
 Type: Automatic Pump-Timer

<u>Date</u>	<u>Radium-226</u> <u>µg/liter</u>	<u>Uranium</u> <u>µg/liter</u>
<u>1964</u>		
August 1-August 8	0.31	14
August 8-August 16	0.20	20
August 16-August 23	0.15	14
August 23-August 29	0.21	31
August 29-September 6	0.59	40
September 6-September 14	1.9	62
September 14-September 21	0.81	37
September 21-September 27	0.53	29
September 27-October 3	0.69	35
October 3-October 11	0.35	40
October 11-October 18	0.49	26
October 18-October 25	0.23	35
October 25-November 1	0.20	37
November 1-November 8	0.46	95
November 8-November 15	0.80	34
November 15-November 22	1.8	47
November 22-November 29	1.4	61
November 29-December 6	0.49	32
December 6-December 15	0.76	36
December 15-December 20	0.43	46
December 20-December 26	0.40	39
December 26-January 3	0.61	65
<u>1965</u>		
January 3-January 10	0.75	44
January 10-January 17	0.75	91
January 17-January 24	0.76	44
January 24-January 31	1.3	48
January 31-February 7	0.43	27
February 7-February 14	0.50	41
February 14-February 20	3.2	39
February 20-February 28	0.39	41

RMN Station 21: Dolores River at Bedrock, Colorado
Started: October 30, 1961
Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 3-August 23	0.34	8.5
August 31-October 2	0.70	21
October 5-October 30	1.0	29
November 2-November 27	1.1	30
November 30-January 2	0.41	12
<u>1965</u>		
January 4-January 29	0.38	11
February 1-February 26	0.40	11

RMN Station 24: Gunnison River above Gunnison, Colorado
Started: December 11, 1961
Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 3-August 28	0.04	1.4
August 31-October 2	0.05	1.2
October 5-October 30	0.06	1.7
November 2-November 27	0.06	1.3
November 30-January 2	0.03	1.9
<u>1965</u>		
January 4-January 29	0.03	1.7
February 1-February 26	0.05	1.4

RMN Station 25: Gunnison River below confluence of Tomichi Creek,
Gunnison, Colorado
Started: December 11, 1961
Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>µg/liter</u>	<u>Uranium</u> <u>µg/liter</u>
<u>1964</u>		
August 3-August 28	0.04	1.6
August 31-October 2	0.04	2.0
October 5-October 30	0.05	2.4
November 2-November 27	0.03	4.3
November 30-January 2	0.04	4.3
<u>1965</u>		
January 4-January 29	0.05	3.6
February 1-February 26	0.03	3.7

RMN Station 26: Dolores River at Gateway, Colorado
Started: October 30, 1961
Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>µg/liter</u>	<u>Uranium</u> <u>µg/liter</u>
<u>1964</u>		
August 3-August 29	0.40	9.2
August 31-October 2	1.3	33
October 5-October 31	0.75	31
November 2-November 27	1.8	50
November 30-January 1	0.85	33
<u>1965</u>		
January 4-January 29	0.84	32
February 1-February 26	1.1	29

RMN Station 28: Yampa River below Maybell, Colorado
Started: July 2, 1962
Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>µg/liter</u>	<u>Uranium</u> <u>µg/liter</u>
<u>1964</u>		
August 3-August 28	0.08	2.4
August 31-October 2	0.14	3.5
October 5-October 30	0.10	3.5
November 2-November 27	0.13	2.9
November 30-January 1	0.09	3.6
<u>1965</u>		
January 4-January 29	0.08	2.3
February 1-February 26	0.06	3.2

RMN Station 29: Green River below Green River City, Utah

Started: July 16, 1962

Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
June 1-June 26	0.09	3.3
June 29-July 30	0.10	3.5
August 3-August 24	0.14	5.5
September 7-September 28	0.03	5.2

RMN Station 30: Colorado River at U.S. - Mexican Border

Started: July 30, 1962

Type: Five grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 3-August 28	0.25	8.1
August 31-October 2	0.33	8.1
October 5-October 30	0.11	9.2
November 2-November 27	0.13	9.2
November 30-December 31	0.11	3.3
<u>1965</u>		
January 4-January 29	0.13	7.8
February 1-February 26	0.13	8.4

RMN Station 31: Colorado River at Page, Arizona
Started: May 1, 1963
Type: 300 cc composite per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 3-August 31	0.26	10
September 14-September 21	0.20	6.9
October 5-October 26	0.15	6.5
November 2-November 30	0.20	7.8
December 7-December 23	0.08	7.8
<u>1965</u>		
January 4-January 25	0.05	9.4
February 1-February 15	0.21	7.2

RMN Station 32: Colorado River at (Lake Mead) Boulder City, Nevada

Started: March 11, 1963

Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>μg/liter</u>	<u>Uranium</u> <u>μg/liter</u>
<u>1964</u>		
August 3-August 23	0.34	9.2
August 31-October 2	0.21	3.8
October 5-October 30	0.34	11
November 2-November 27	0.34	8.8
November 30-January 1	0.36	11
<u>1965</u>		
January 4-January 29	0.35	3.5
February 2-February 26	0.31	9.5

RMN Station 33: Colorado River at Metropolitan Water District
Intake Lake Havasu, California-Arizona

Started: January 7, 1963

Type: Three grab samples per week

<u>Date</u>	<u>Radium-226</u> <u>µg/liter</u>	<u>Uranium</u> <u>µg/liter</u>
<u>1964</u>		
August 4-August 25	0.36	8.1
August 30-October 2	0.41	9.4
October 5-October 28	0.39	8.6
November 1-November 27	0.38	8.9
December 2-December 28	0.38	8.5
<u>1965</u>		
January 4-January 29	0.33	9.2
February 1-February 26	0.33	8.4